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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/620,991	07/16/2003	Naoto Seshita	SANAPA P03AUS	8831

20210 7590 10/29/2004

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MANCHESTER, NH 03101-1151

EXAMINER
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JONES, JUDSON

ART UNIT	PAPER NUMBER
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2834

DATE MAILED: 10/29/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

10/620,991

**Applicant(s)**

SESHITA ET AL.

**Examiner**

Judson H. Jones

**Art Unit**

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 and 9-13 is/are rejected.
- 7) ☒ Claim(s) 2-8, 14 and 15 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
  - 2) ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Schmidt 5,517,070 A. Schmidt discloses an electric actuator comprising a casing 1, a motor, a motor shaft 3, a housing 2, a worm 32, a worm wheel 8, a first radial bearing 5, a second radial bearing 6 and a thrust bearing 4.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 9, 10, 12 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schmidt in view of Heinrich 6,667,562 B1 and Anderson et al. 4,787,245 A. Schmidt discloses the actuator but does not disclose a rotation detector. Heinrich teaches in detecting the direction and speed of an actuator in column 5 lines 3-9, with speed being measured by the time it takes the actuator to move from one angular position to another. Since Heinrich and Schmidt are from the same field of endeavor it would have been obvious at the time the invention was made for one of ordinary skill in the art to have utilized a position detection means in the device of

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Schmidt in order to improve control over the actuator. Schmidt as modified by Heinrich does not disclose any details of the sensor signals. Anderson et al. teaches digital signals in column 5 lines 3-8. Since Anderson et al. and Schmidt as modified by Heinrich are from the same field of endeavor it would have been obvious at the time the invention was made for one of ordinary skill in the art to have utilized digital signals in order to use common and inexpensive electronic control means for controlling an actuator.

Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Schmidt as modified by Heinrich and Anderson et al. as applied to claim 9 above, and further in view of Lauf et al. 6,515,399 B1. Schmidt as modified by Heinrich and Anderson et al. discloses the actuator but does not disclose using an electronic circuit on a substrate. Lauf et al. teaches using a printed circuit board in column 1 lines 17 ½ to 19 ½. Since Lauf et al. and Schmidt as modified by Heinrich and Anderson et al. are from the same field of endeavor it would have been obvious at the time the invention was made for one of ordinary skill in the art to have utilized a printed circuit board (i.e., a substrate with and electronic circuit) in order to reduce the cost of the machine.

***Allowable Subject Matter***

Claims 2-8, 14 and 15 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter:  
The prior art of record does not disclose or teach first and second metal bearings equally spaced from a worm in combination with the other features of claim 2. The prior art of record does not

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disclose or teach a first bearing between an axial end of a motor shaft and a worm and a second bearing near the worm with the first bearing smaller than the second bearing in combination with the other features of claim 3. The prior art of record does not disclose or teach a thrust radial ball bearing to support a motor shaft assembly in combination with the other features of claim 4. The prior art of record does not disclose or teach storing a value in memory in order to measure the angle of rotation of an actuator as an absolute value in combination with the other features of claims 14 and 15.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Tatsumi 6,476,862 B1 discloses keeping track of the absolute position of the moving portion of a device in column 15 lines 45-53. Tatsumi discloses a device for generating an image. No motivation has been found for combining the teaching of Tatsumi with the actuator of Schmidt.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Judson H. Jones whose telephone number is 571-272-2025. The examiner can normally be reached on 8-4:30 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Darren Schubert can be reached on 571-272-2044. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



JHJ 10/22/2004



THANH LAM  
PRIMARY EXAMINER